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 SECURITY INFORMATION
 CENTRAL INTELLIGENCE AGENCY
 INFORMATION FROM
 FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT
 CD NO.

COUNTRY USSR
 SUBJECT Economic; Technological - Machine tools
 HOW PUBLISHED Monthly periodical
 WHERE PUBLISHED Moscow
 DATE PUBLISHED Jul 1953
 LANGUAGE Russian

DATE OF INFORMATION 1953
 DATE DIST. 14 Dec 1953

NO. OF PAGES 2

SUPPLEMENT TO REPORT NO.

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SOURCE Stanki i Instrument, No 7, 1953

SOVIET DYNAMIC BALANCING MACHINES

Designs of a group (gamma) of dynamic balancing machines have been developed within the system of the Ministry of Machine Building, USSR. A large number of the models in the group are being used in production. An instrument for dynamic balancing of rotors while they are in operation has also been developed.

The following table gives the technical specifications for the group of balancing machines which have been developed:

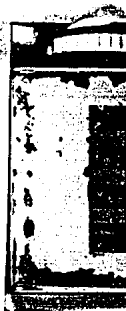
	Model Numbers				
	<u>9A725</u>	<u>9730</u>	<u>9734</u>	<u>9736</u>	<u>9736A</u>
Maximum weight of work that can be balanced, kg	100	320	3,200	10,000	16,000
Minimum weight of work that can be balanced, kg	10	30	300	1,000	1,000
Maximum work diameter, mm	800	1,250	2,500	3,200	3,200
Maximum distance between bearing centers, mm	1,200	2,000	4,000	6,300	6,300
Maximum shaft diameter of work (at maximum weight), mm	150	300	200	280	360
Shaft diameter (with minimum weight of work), mm	--	--	300	360	500
Speed of workpiece, rpm	800 1,250 2,000	600 1,000 1,600	560	450	450

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Models 9A725 and 9730 are intended mainly for use in series production. They can balance rotors both on sleeve bearings and on antifriction bearings. The measurement time of a machine which has been set up is 1-2 minutes. The accuracy of unbalance measurement depends on the accuracy of the shafts and antifriction bearings. With good-quality bearings, the amount of unbalance not located by the machine is very small. An electrical measuring device in the machine responds to extremely slight vibration of the machine's bearings in which the rotor being balanced rotates. It measures the amplitude of vibration within one micron.

Models 9734, 9736, and 9736A are intended for balancing heavy rotors in individual or production.

Models 9A725 and 9730 have a network of electronic and band filters. Models 9734, 9736, and 9736A do not have the electronic network since the parts balanced on these machines operate on sleeve bearings.

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